

Nemas

Records Administration Office

31 July 1968

ATTN : [REDACTED]

25X1A9a

Water Problems - Records Storage Building, [REDACTED]

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1. On 12 June 1968 this Station was subjected to heavy rainfall (3.5 inches during the evening hours) and high wind action with gusts of 20-30 knots. As a result of these weather conditions, water problems were experienced in the Records Storage Building as well as other buildings and structures at [REDACTED].

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2. One inch of water flooded the ground level floor of the Records Storage Building and water damage was minimized due to rapid reaction of [REDACTED]

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3. An inspection was conducted by the [REDACTED] Post Engineer to determine the possible causes of this water problem and to make appropriate recommendations for correction.

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4. The findings of this inspection are summarized as follows:

a. Exterior Conditions -

(1) All area drains were covered with grass cuttings washed out of lawns by the rain. The large volume of water had no place to drain off.

(2) Concrete Drainage Ditch on North side of addition has very little slope and grass cuttings in ditch can build up dams and cause water to back up and overflow.

(3) Concrete pads at fire exits do not have drains under them and prevented water from flowing to East side of building and down the hill.

(4) Exterior walls above footings are cavity walls of concrete block. These walls are quite high and long. With high winds and heavy rains these walls would deflect a large quantity of water toward the drainage ditch at the base of the walls. Any small hairline cracks in these walls would allow a large quantity of water to enter the walls.

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SUBJECT: Water Problems - [REDACTED]

b. Interior Conditions:

(1) A sump pump well has been cut through the floor and a small sump pump installed. This sump is not integral with the floor and merely pumps water from the exposed gravel sub-base beneath the existing floor. The pump is too small to handle any large quantity of water and it has no check valve on the discharge line.

c. Structural Conditions:

(1) Cavity walls - With weep pipes and flashing at the base of a high wall it is possible that mortar has built up over the flashing and effectively plugged outlets. Any extra water in the cavity might run through the inner wall and onto the floor.

(2) Construction joints - such as joint detail 1/3/3 on plans are not satisfactory water stops. There is no caulking joint and no type of inserted flashing to waterproof the joint. This is an oversight in the design of the building and costly to correct after constructed.

(3) Floors have no pitch to them and water cannot be collected at one point. There are no floor drains in the building.

5. Recommended actions are listed which should be accomplished at the earliest practical date to preclude possible water drainage within the building and to keep this component operational should another rainstorm of this magnitude occur:

a. The drains in concrete gutters could be corrected by raising covers and screening similar to a roof drain. This would allow water to drain off even if grass cuttings built up around drains.

b. The entry pads would be a more difficult problem. Pipes should be run under them to allow free passage of water/or a drain cut completely around the pads.

c. The sump pit should be enlarged and made an integral part of the floor so as to be waterproof. The pump should be larger and have a float switch on it. The discharge line should have a check valve installed and should dump into the storm drain on exterior of building.

d. The existing cavity wall drains should be cleaned out thoroughly so as to provide free drainage of any water collecting on top of the flashing.

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SUBJECT: Water Problems - [REDACTED]

e. The concrete gutters should be removed and a perimeter drainage system installed with rock drainage bed carrying open joint tile. This would allow any excess water penetrating surface to drain off to the storm drain system. The slope of drainage gutters could also be increased when rebuilt.

f. If leakage occurs again at the construction joint it can be sawed open and caulked from the exterior. This would require excavation to the footing level, sawing, caulking, and repainting sections damaged.

6. A cost estimate for the above work is attached for your review. Due to the scope of this project accomplishment by contract is contemplated. Since station funds are not available for this project, request funds in the amount of \$3500.00 be authorized.

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Enclosure:

(1) Estimate of Costs

Information:

1 - [REDACTED]
1 - [REDACTED]

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ESTIMATE OF COSTS TO REMEDY WATER PROBLEMS - [REDACTED]

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1. Screens for drains - \$150.00.
2. Remove entry pads, place drains under, replace with new pads - \$350.00.
3. Enlarge sump pump pit, install new pump and discharge lines - \$400.00.
4. Clean cavity wall drains - \$60.00.
5. Remove and replace concrete drainage gutters- 260' x \$6.00=\$1,560.00.
6. Saw and caulk exposed joints - \$250.00.

ESTIMATE: \$2,770.00

FOR CONTRACT USE -	\$2770.00
+ 25%-	693.00
	<u>\$3500.00</u>